

COVID-19 WEEKLY EPIDEMIOLOGY BRIEF

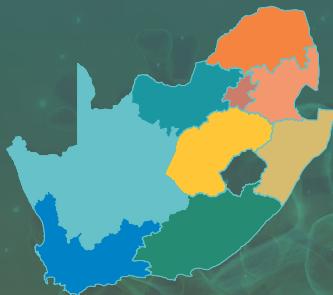


NATIONAL INSTITUTE FOR
COMMUNICABLE DISEASES

Division of the National Health Laboratory Service

SOUTH AFRICA WEEK 26 2020

CUMULATIVE DATA FROM



CASES

138 134
IN TOTAL

40 832
THIS WEEK

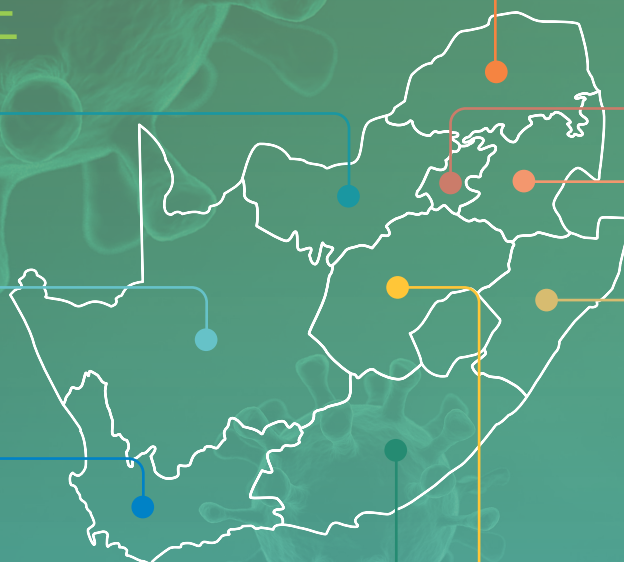
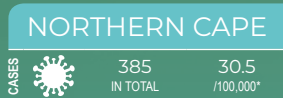


PERSONS

235.1
INCIDENCE RISK*

39
MEDIAN AGE

PROVINCES AT A GLANCE



* Incidence risk - cases per 100 000 persons

SUMMARY

Overview of report

Disease surveillance is a core function of the National Institute for Communicable Diseases (NICD), a division of the National Health Laboratory Service (NHLS). This report summarises data from a national laboratory-based surveillance system that is used to monitor the coronavirus disease 2019 (COVID-19) pandemic in South Africa. This report is based on data collected up to 27 June 2020 (week 26 of 2020). Note: COVID-19 is the name of the disease and SARS-CoV-2 is the name of the virus.

Highlights

- As of 23:59 on 27 June 2020, a total of 138 134 laboratory-confirmed COVID-19 cases had been detected in South Africa. Of these, 40 832 were reported during epidemiological week 26 of 2020. The number of new cases continue to increase week on week, an increase of 13 568 cases reported in week 26 compared to week 25.
- A total of 2 456 (526 new deaths reported in past week) individuals died with a case-fatality ratio of 1.7%. The number of additional deaths was similar to the number reported in the previous week (450).
- Three provinces, Western Cape, Eastern Cape and Gauteng continue to report the majority of cases, (122 439/138 134; 88.6%). In the past week, Gauteng Province reported the highest proportion of new cases (16 073/40 832, 39.4 %), followed by the Eastern Cape Province (9 348/40 832, 22.9%) and the Western Cape Province (9 004/40 832, 22.1 %).
- In the past week the Eastern Cape Province reported the highest increase in cumulative incidence risk, an increase of 139.3 cases per 100 000 persons, followed by the Western Cape, 131.6 cases per 100 000 persons, and Gauteng provinces, 105.9 cases per 100 000 persons.
- The cumulative incidence risk to date increased with increasing age and peaked in the 50-54-year age group. Similarly, the cumulative incidence increase in the cumulative incidence risk from week 25 to week 26 also increased with increasing age, picking in the 50-54-year age group. The highest increase in cumulative incidence risk from week 25 to week 26, was among females (77.1 cases per 100 000 cases [95% CI 76.2-78.1] vs. 60.5 cases per 100 000 persons [95% CI 59.6-61.4]) in men.
- Trends in numbers of new cases by province may be affected by changes in testing practice and delays in testing of specimens.

57.1%

OVERALL
MAJORITY OF
CASES REPORTED
ARE FEMALE

235.1
/100 000

OVERALL
INCIDENCE RISK

LABORATORY-CONFIRMED CASES OF COVID-19 IN SOUTH AFRICA

Methods

Testing for SARS-CoV-2 began on 28 January 2020 at the NICD and after the first case was confirmed in early March 2020, testing was expanded to a larger network of private and NHLS laboratories. Respiratory specimens were submitted from persons under investigation (PUI). Initially, tested individuals were those who had travelled to countries with COVID-19 transmission but the PUI definition was changed over time. Community symptom screening and referral for PCR testing was implemented in April 2020 but the strategy was changed to a more targeted approach in May 2020. Community screening was discontinued and testing efforts focussed on areas identified as hot spots and on investigating clusters. Contacts of cases were traced and tested if symptomatic. In some provinces and in certain circumstances (e.g. closed settings, workplaces), asymptomatic contacts were tested. Laboratories used any one of several in-house and commercial PCR assays to test for the presence of SARS-CoV-2 RNA. We excluded specimens collected outside South Africa. Date of specimen receipt in the laboratory was used when date of specimen collection was missing. A case of COVID-19 was defined as any person, resident in South Africa, with a single positive SARS-CoV-2 PCR test. We used 2019 mid-year population estimates from Statistics South Africa to calculate the incidence risk (cumulative or weekly incidence), expressed as cases per 100 000 persons. Aggregate data on the number of deaths by province was obtained from the Department of Health.

National and provincial trends

As of 27 June 2020, a total of 138 134 laboratory-confirmed COVID-19 cases were reported in South Africa. The number of new cases, 40 832, reported in the past week was higher than the number of cases reported in the previous week, 40 832 vs. 27 264 in week 25. Of the new cases reported in week 26, Gauteng Province reported the highest proportion of cases (16 073/40 832, 39.4%), followed by the Eastern Cape Province (9 348/40 832, 22.9%) and the Western Cape Province (9 004/40 832, 22.1%) (Table 1). In the past week, the Western Cape was overtaken by the Eastern Cape as the province with the 2nd highest number of new cases reported (Table 1). Similar to the previous week, the three provinces, the Western Cape (60 445/138 134, 43.8%), Gauteng (36 895/138 134, 26.7%) and the Eastern Cape (25 099/138 134, 18.2%) contributed the majority of total cases (122 439/138 134; 88.6%).

To date, the Western Cape Province had the highest cumulative incidence risk (883.1 cases per 100 000 persons) followed by the Eastern Cape (373.9 per 100 000 persons) and Gauteng provinces (243.1 cases per 100 000 persons). Limpopo Province remains the province with the lowest cumulative incidence risk (15.8 cases per 100 000 persons). In the

39.4%

CASES REPORTED IN
GAUTENG PROVINCE
IN THE PAST WEEK

50-54

YEAR AGE
GROUP
HAS THE HIGHEST
INCIDENCE

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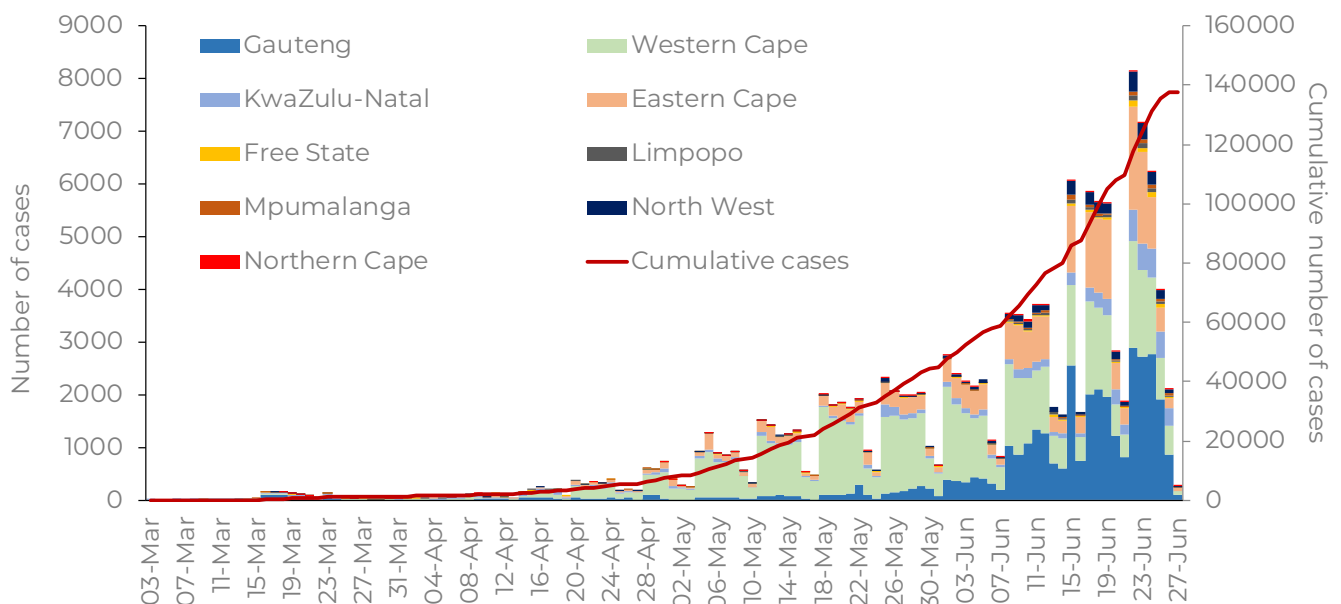
WEEK 26 2020

LABORATORY-CONFIRMED CASES OF COVID-19 IN SOUTH AFRICA

past week, the highest increase in cumulative incidence risk from week 25 to week 26 was reported in Gauteng Province, an increase of 139.3 cases per 100 000 persons, followed by the Western Cape Province, increased by 131.6 cases per 100 000 persons, and Gauteng Province, increased by 105.9 cases per 100 000 persons. (Table 1 and Figure 3).

The cumulative incidence risk for the country increased from 165.6 cases per 100 000 persons in week 25 to 235.1 cases per 100 000 persons in week 26. The cumulative incidence risk varied by province over time (Figure 3). This is partly explained by testing differences by province (Table 1). In the past week the number of tests performed per 100 000 persons ranged from 59.5 in Limpopo to 381.4 in Gauteng [Province](#).

To date, a total of 2 456 (526 additional cases reported in the last week) of 138 134 (1.7%) individuals were reported to have died. This number of new deaths this week is similar to the number of new deaths reported in week 25 (450). A crude case-fatality ratio (CFR) calculated in this way (number of deaths/number of diagnosed cases) is subject to numerous limitations. The CFR may be an underestimate because deaths are more likely to be reported if a patient with COVID-19 died in hospital and deaths out of hospital may be missed, in addition deaths may be delayed.



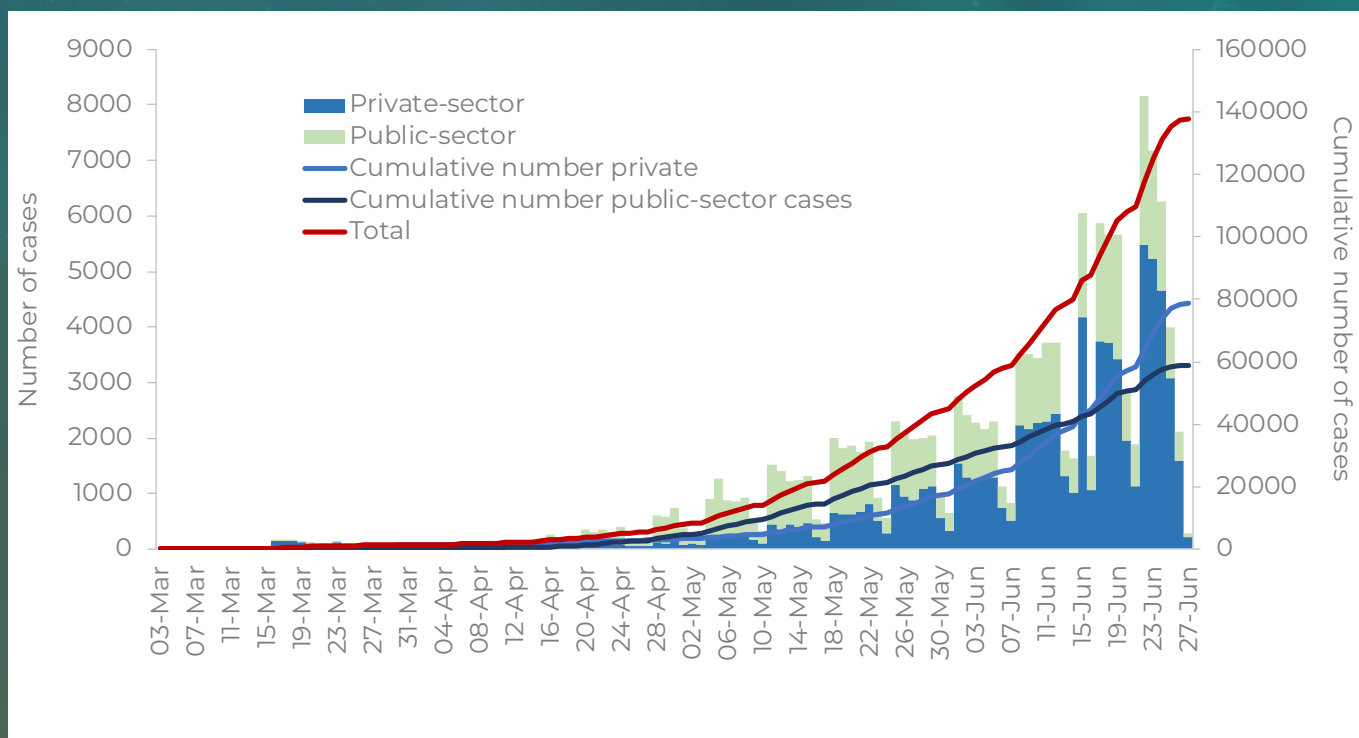
*Date of specimen receipt used where date of collection was missing

Figure 1. Number and cumulative number of laboratory-confirmed cases of COVID-19 by province and date of specimen collection, South Africa, 3 March-27 June 2020 (n=137 715, 419 missing dates of specimen collection and/or province allocation)

COVID-19 WEEKLY EPIDEMIOLOGY BRIEF

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LABORATORY-CONFIRMED CASES OF COVID-19 IN SOUTH AFRICA



*Date of specimen receipt used where date of collection was missing

Figure 2. Number and cumulative number of laboratory-confirmed cases of COVID-19, by testing laboratory sector and date of specimen collection, South Africa, 3 March-27 June 2020 (n=137 715, 419 missing dates of specimen collection and/or sector allocation)

Table 1. Number and cumulative incidence risk of laboratory-confirmed cases of COVID-19 and testing per 100 000 persons by province, South Africa, 3 March 27 June 2020 (n=138 134)

Province	Total cases (n)	New cases, 21-27 June 2020, n (percentage, n/total)	Percentage* (n/ cumulative cases) (95% confidence interval)	Population in mid-2019** (n)	Cumulative incidence risk (cases per 100 000 persons)	Change in cumulative incidence risk (cases per 100 000 persons), week 25 to week 26	Tests per 100 000 persons, 21-27 June 2020
Eastern Cape	25 099	9 348 (22.9)	18.2 (17.9-18.4)	6 712 276	373.9 (369.3-378.6)	139.3	281.6
Free State	1 279	546 (1.3)	0.9 (0.9-1.0)	2 887 465	44.3 (41.9-46.8)	18.9	278.4
Gauteng	36 895	16 073 (39.4)	26.7 (26.5-26.9)	15 176 115	243.1 (240.6-245.6)	105.9	381.4
KwaZulu-Natal	8 433	3 403 (8.3)	6.1 (6.0-6.2)	11 289 086	74.7 (73.2-76.3)	30.1	197.2
Limpopo	935	371 (0.9)	0.7 (0.6-0.7)	5 982 584	15.6 (14.6-16.7)	6.2	59.5

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LABORATORY-CONFIRMED CASES OF COVID-19 IN SOUTH AFRICA

Mpumalanga	1 016	443 (1.1)	0.7 (0.7-0.8)	4 592 187	22.1 (20.8-23.5)	9.6	105.6
North West	3 647	1 499 (3.9)	2.6 (2.5-2.7)	4 027 160	90.6 (87.6-93.5)	37.2	129.2
Northern Cape	385	148 (0.4)	0.3 (0.2-0.3)	1 263 875	30.5 (27.533.7)	11.7	74.7
Western Cape	60 445	9 004 (22.1)	43.8 (43.5-44.0)	6 844 272	883.1 (876.2-890.2)	131.6	374.9
Not allocated	0						
South Africa	138 134	40 832 (100)	100	58 775 020	235.0 (233.8-236.2)	69.5	253.1

*Percentage= n/cumulative number of cases to date ** 2019 Mid-year population Stats SA

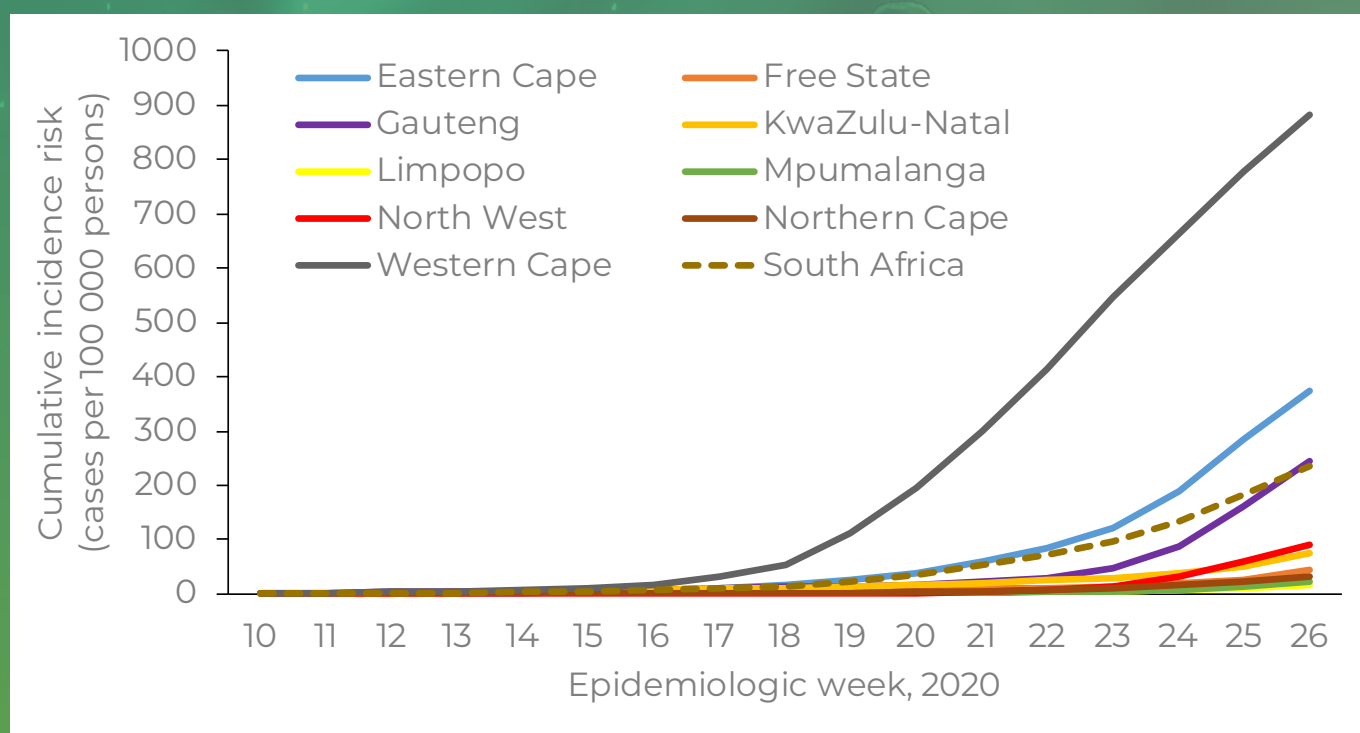


Figure 3. Cumulative incidence risk of PCR-confirmed COVID-19 by province and epidemiological week, South Africa, 3 March-27 June 2020 (n= 137 715, 419 missing dates of specimen collection and/or province allocation)

CHARACTERISTICS OF CASES BY AGE AND SEX

The median age of COVID-19 cases to date was 39 years, interquartile range (IQR) 30-50 years. The largest proportion of all cases to date was in the 35-39-year age group (18 468/137 387, 13.4 %) followed closely by the 30-34-year age group (18 308/137 387, 13.3 %) (Figure 4). In the past week, the highest proportion of cases was in the 35-39-year age group (5 304/40 832, 13.0%). Cases reported in the last week had a similar median age (40 years, interquartile range (IQR) 30-51 years). To date, the cumulative incidence risk was highest among those in the 50-54-year age group (473.0 cases per 100 000 persons), followed by those in the 45-49-year age group (459.9 cases per 100 000 persons). The lowest cumulative incidence risk was reported in the younger age-groups, 30.6 cases per 100 000 persons and 31.6 cases per 100 000 persons in the 0-4 and 5-9-year age groups, respectively (Figure 5 and Table 2). Similar to the previous week, the highest increase in cumulative incidence risk in week 26 was among individuals in the 50-54-year age group, 148.5 cases per 100 000 persons and the lowest increase in cumulative incidence risk was in the 0-4-year age group 8.7 cases per 100 000 persons.

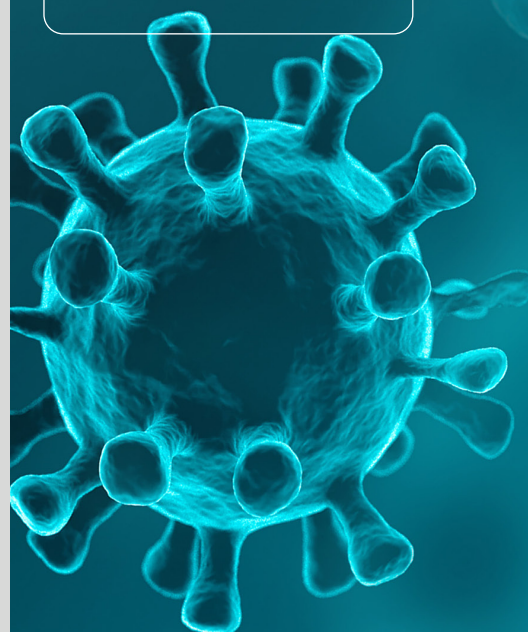
To date, the majority of COVID-19 cases reported were female (57.1%, 78 337 /137 150; 95% CI 56.9-57.4). This was similar to the proportion reported in the past week (57.2 %, 23 221/40 573) (95% CI, 56.7- 57.7). The cumulative incidence risk remained higher among females than in males (260.0 cases per 100 000 persons [95%CI 258.4-262.1] versus 205.1 cases per 100 000 persons [95% CI 203.5-206.8]) (Figure 6). However, this varied by age group with the peak cumulative incidence risk among females aged 40-44 years and males aged 50-54 years (Figure 6 and Figure 7). The highest increase in cumulative risk incidence from week 25 to week 26, was among females (77.1 cases per 100 000 cases [95% CI 76.2-78.1] vs. 60.5 cases [95% CI 59.6-61.4]) in men. This may be partly explained by varying testing practices by age and sex (data not shown) and by health seeking behaviour.

40

THE MEDIAN
AGE OF CASES IN THE
PAST WEEK

13%

LARGEST
PROPORTION OF ALL
CASES TO DATE IN
THE 35-39- YEAR AGE
GROUP



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CHARACTERISTICS OF CASES BY AGE AND SEX

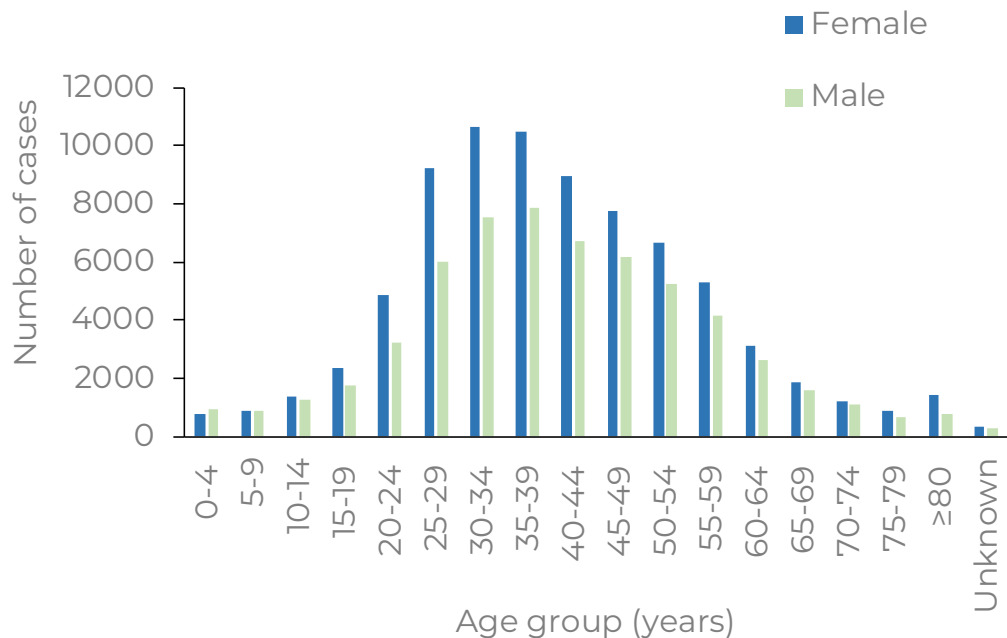


Figure 4. Number of laboratory-confirmed cases of COVID-19 by age group and sex, South Africa, 3 March-27 June 2020 (n=138 134)

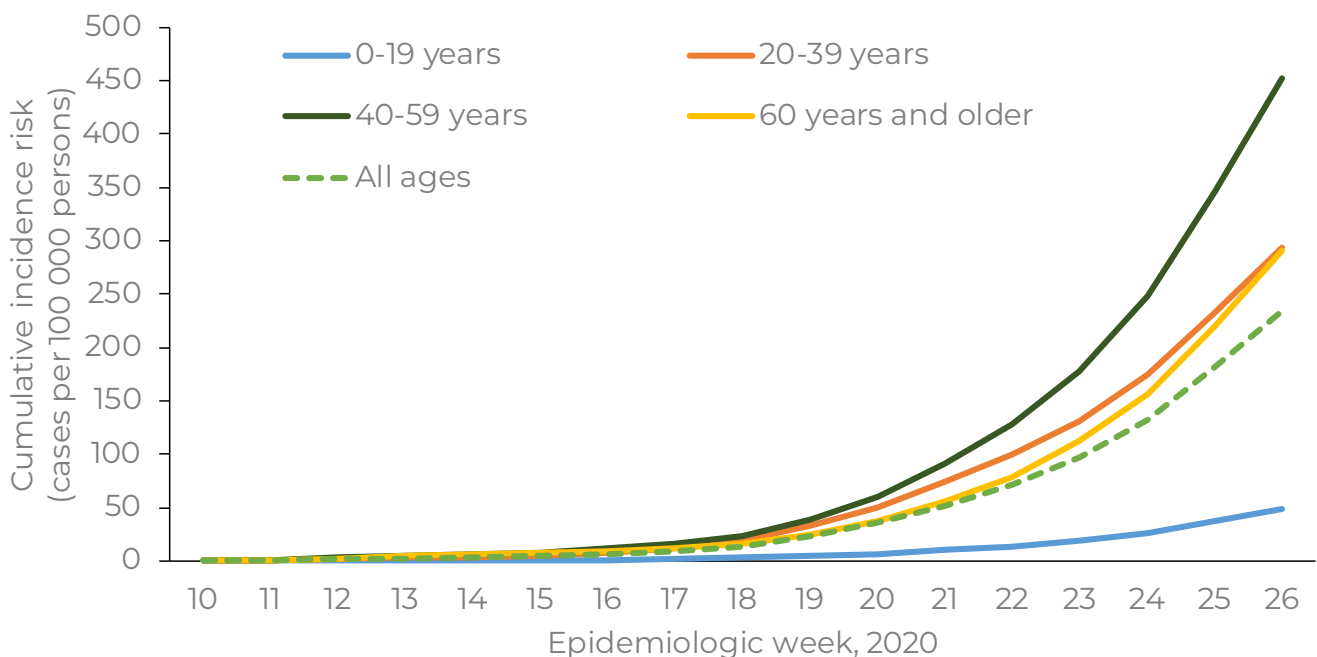


Figure 5. Cumulative incidence risk of PCR-confirmed COVID-19 cases by age group and epidemiological week, South Africa, 3 March-27 June 2020 (n=137 387, 751 missing date of specimen collection/age)

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CHARACTERISTICS OF CASES BY AGE AND SEX

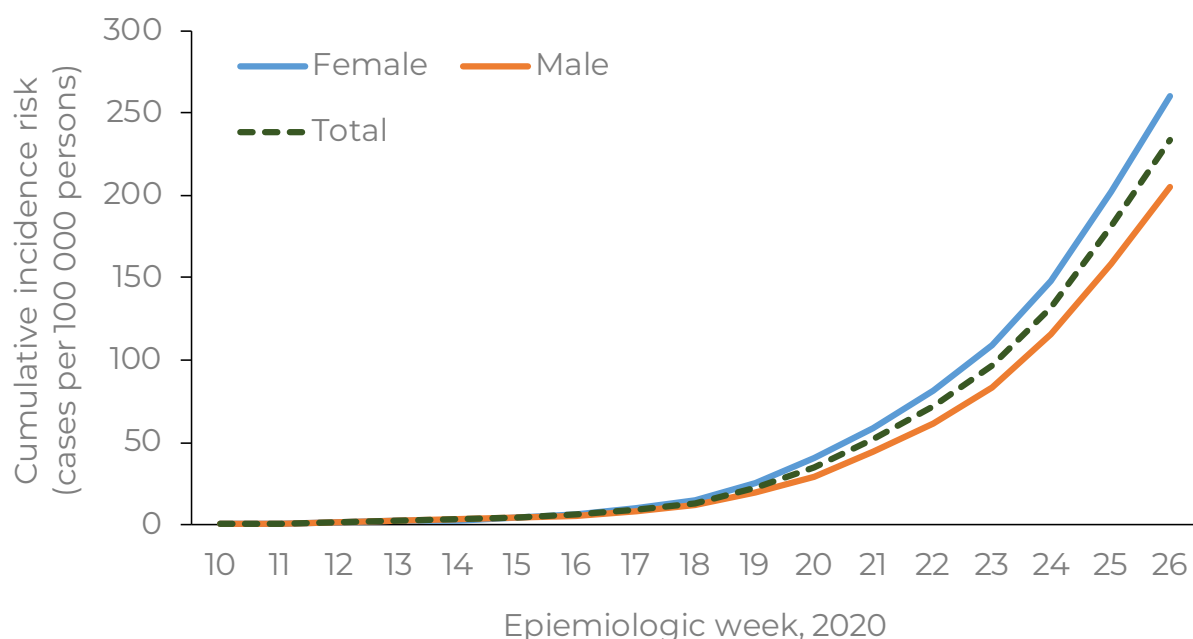


Figure 6. Cumulative incidence risk by sex and epidemiological week, South Africa, 3 March 2020-27 June 2020 (n=137 150, 984 missing dates of specimen collection/sex)

Table 2. Number of cases and cumulative/weekly incidence risk by age group, South Africa, 3 March 2020- 27 June 2020, n=138 134

Age group (years)	Cases (n)	Cases 20-27 June, n (percentage, n/total)*	Population in mid-2019**, n	Cumulative incidence risk (cases per 100 000 persons)	Change in cumulative incidence risk (cases /100 000 persons), week 25 to week 26
0-4	1 754	501 (1.2)	5 733 946	30.6	8.7
5-9	1 814	568 (1.4)	5 737 439	31.6	9.9
10-14	2 668	881 (2.2)	5 427 902	49.2	16.3
15-19	4 162	1 618 (4.0)	4 660 002	89.3	34.7
20-24	8 165	2 124 (5.2)	4 914 186	166.2	43.3
25-29	15 347	4 105 (10.1)	5 528 571	277.6	74.3
30-34	18 308	5 089 (12.5)	5 537 963	330.6	91.9
35-39	18 468	5 304 (13.0)	4 571 175	404.0	116.2
40-44	15 740	4 658 (11.4)	3 585 408	439.0	129.9
45-49	14 008	4 212 (10.3)	3 045 617	459.9	138.3
50-54	11 991	3 764 (9.2)	2 535 048	473.0	148.5

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CHARACTERISTICS OF CASES BY AGE AND SEX

55-59	9 531	3 036 (7.4)	2 192 512	434.7	138.5
60-64	5 807	1 790 (4.4)	1 784 476	325.4	29.2
65-69	3 483	1 030 (2.5)	1 370 121	254.2	75.2
70-74	2 320	714 (1.7)	949 812	244.3	75.2
75-79	1 599	526 (1.3)	597 874	267.4	87.9
≥80	2 222	706 (1.7)	602 969	368.5	117.1
Unknown	747	204 (0.5)			
Total	138 134	40 832	58 775 022	235.0	69.5

*Percentage=n/total number of cases in current week **2019 Mid-year population Stats SA

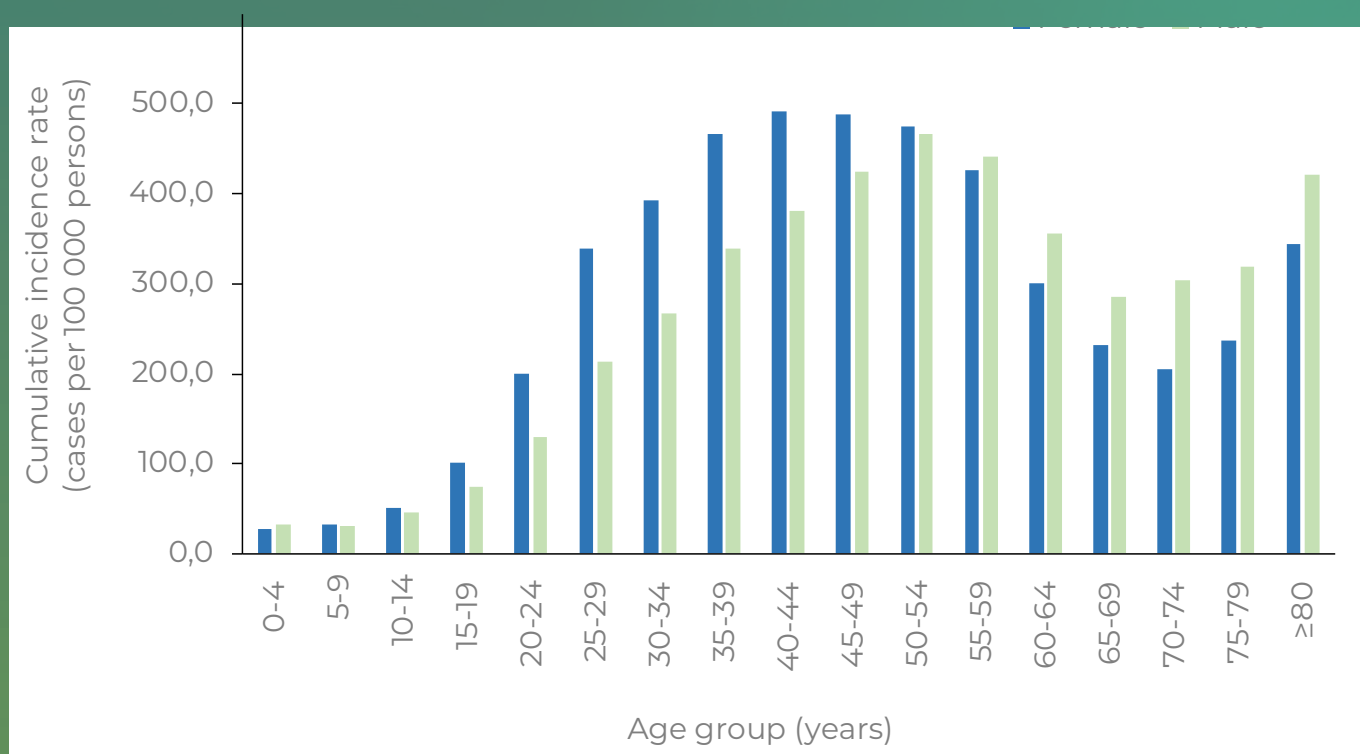


Figure 7. Cumulative incidence risk by age group and sex, South Africa, 3 March 2020 - 27 June 2020 (n=137 150, age and/or gender missing for 984 cases)

LIMITATIONS

This report is based on laboratory-based surveillance of PCR-confirmed cases. The number of reported cases is heavily dependent on testing practices. Although trends over time and comparisons by geographic area are presented in this report, changes in testing practices over time or differences by region may partially explain the results. The crude case-fatality ratio reported here is subject to numerous limitations, it is likely to be an underestimation as deaths may be delayed and deaths which occurred outside health facilities may be missed. Differences in health-seeking behaviour by age group and sex could also contribute to observed differences in case numbers between groups.

CONCLUSIONS

The first case of COVID-19 in South Africa was reported on the 5th March 2020. Since then a total of 138 134 and 2 456 deaths have been reported. The number of COVID-19 cases reported continues to increase week on week in all nine provinces of South Africa. Gauteng and Eastern Cape Province experienced an upsurge in number of daily cases in the past two weeks. However, the Western Cape Province remains as the province with the highest proportion of cases and cumulative incidence risk to date. The increase in number of cases in Gauteng and Eastern Cape may be explained by increasing transmission as well as increased testing. The cumulative incidence risk increases with increasing age and peaks in the 50-54-year age group. Females continue to contribute the majority of cases to date.